REMARKS

This Amendment After Final is prepared in response to the final Office action mailed on 20 May 2008 (Paper No. 20080320).

This Amendment is being submitted with a Request for Continued Examination.

Listing of The Claims

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

Status of The Claims

Claims 1, 27-29 and 31-34 are pending in this application.

Amendment of The Claims

Claims 23-26 and 30 are cancelled. Claims 1, 28 and 29 are amended. Claims 32-34 are newly added.

Independent claim 1 is amended to recite that the first hub determines whether to transmit the call connection request signal to the private station controller or to the second hub based on a determination regarding whether a server address included in the UATI assigned to the transmission-side terminal **belongs to a set of server addresses pre-stored in the first hub**. This amendment is fully supported by Applicant's original specification. See Applicant's original specification:

> paragraph [0040], "The hub 110 has predetermined **server addresses** utilized in determining whether a call is originated to the inside of the private wireless network or not. When there is a call to a server or an Unicast Access Terminal Identifier terminal having the server, which has an Unicast Access Terminal Identifier information containing a server address **belonging to the**

predetermined server addresses in the hub 110, the call is detected as a call to the inside of the private wireless network";

paragraph [0041], "If the terminal of the private wireless network requests to access one of the predetermined server addresses or originates a call to a terminal having **one of the predetermined server addresses**, such as the address "aaa@samsung.com," for example, the call from the terminal is detected as a call to the inside of the private wireless network"; and

paragraph [0058], "At step S304, the hub 110 judges whether the received access request signal is requesting to connect with the private wireless network or the public wireless network. As described above with reference to FIG. 1, this judgment is carried out by comparing the server address of the terminal 11 with **addresses stored in advance**".

Independent claim 32 is newly added to recite the process steps performed by the system in claim 1.

Issues Raised by Paper No. 20080320

Claim Rejections – 35 USC § 103

Claims 1, 23, 26 and 31 rejected under 35 U.S.C. 103(a) as being unpatentable over McConnell et al. (US Patent No. 6970719, hereinafter McConnell) in view of Billstrom (US Patent No. 5590133) further in view of Stevens (TCP/IP Illustrated Volume, p. 37-41).

I. Claim 1

a. Regarding claim 1, on pages 2-3 of Paper No. 20080320, the Examiner stated:

"Regarding claim 1, McConnell teaches..... a first hub (MSC 60, Fig. 6) configured to relay data between a base station 62 in the private wireless network, a base station controller 68 in the private wireless network ... , to receive a call connection request signal from a terminal through the base station (C20 L26-34), to transmit the call connection request signal of to the base station controller (C20 L41-50) when a destination address is associated

with a database coupled with the first hub of the private network, to transmit the call connection request signal to a second hub (MSC 16, C21 L61- 64) when said destination address is not associated with the data coupled with the first hub.

the second hub (MSC 16, Fig. 6) conneeted to a public base station, a public base station controller 20, a private authentication system (Gateway SCP 70, C17 L50-56) while being connected to the first hUb, the second hub receiving the call connection request signal of the terminal from the first hub, and transmitting the call connection request signal to the public network base station controller (C21 L61-67).

the second hub (MSC 16, Fig. 6) connected to a public base station, a public base station controller 20, the data location register (HLR , Cil) while being connected to the first hub".

Applicants respectfully traverses.

First, McConnel '719 does not teach or suggest a first hub to determine where to transmit the call connection request signal by the first hub itself. Specifically, McConnell '719 merely discloses an interworking system for a public network and a private network and does not disclose the feature corresponding to the hubs of the present invention. Although the Examiner points out that the first hub and the second hub of the present invention correspond to MSC 60 and MSC 16 of McConnell '719, MSC 60, upon receiving the signal 500, does not directly recognize the position of mobile station 66 at a reception side by using the digits included in the signal 500. Referring to column 20, lines 26 through 55 pointed out by the Examiner, MSC 60 requests gateway 70 for the position of mobile station 66 at the reception side and gateway 70, in response to the request, recognizes that the locator address for mobile station 66 indicates a private network coverage area by using the digits

of mobile station 66, and, then, gateway 70 forwards the result to MSC 60.[1]

Referring to McConnell '719's FIG. 2 illustrating the structure of HLR 32 of the publie network and McConnell '719's FlG. 3 illustrating the structure of gateway 70, gateway 70 corresponds to an HLR of the private network.

On the other hand, the first hub of the present invention directly determines a next route of a call connection request signal by using an identifier assigned to a terminal or a server address included in a destination address. In other words, the first hub delivers the call connection request signal by using the identifier assigned to the terminal, without using resources of HLR or DLR. Therefore, the first hub of the present invention is different from MSC 60 or MSC 16 of McConnell '719. Note that the Examiner does not rely on Billstrom '133 and Stevens in this regard.

b. Regarding claim 1, on pages 4-5 of Paper No. 20080320, the Examiner stated:

> "In an analogous art, Stevens teaches the well known concept of IP routing of data to either the current host/router or to another external router. Figure 3.3 of Stevens shows that both Bsdi and Sun are on the same network segment/subnet. A source Bsdi 140.252.13.35 wants to send data to an internal/private destination address of Sun 140.252.13.33 (example at end of page 39), the bolded portions of the addresses show that the source and the destination both have the same subnet 140.252.13 and have the same serving hub/router address (See Fig. 3.6). As shown in fig. 3.3, when a packet destined for Sun which is directly connected to the local serving hub/router which means the destination address has the same router address as that of the current serving router/hub, the packet is routed by the local router/Ethernet deviee of

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[1] McConnell '719's column 20, lines 34-41 reads: "In response, private MSC 60 sends to Gateway SCP 70 an IS-41 Location Request ("LOCREQ") query 502 containing the dialed digits. From the dialed digits, Gateway SCP 70 identifies mobile station 66 as the station being called and retrieves the data record for mobile station 66 from database 74."

> subnet 140.252.13 (page 38-39, also item #1 in the middle of page 115). However, when Bsdi wants to send data to ftp.uu.net which is resolved/translated to a destination IP address of 192.48.96.9 which does not match with the address of the current router/hub or any host address or network entry in the routing table, then the data is forwarded to a (second hub) default router Sun which in turn forwards the data to an external network segment till the packet reaches the destination (page 40, also item #3 in the middle of page 115). Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modified McConnell's private and public communication system to include Billstrom's PSDN which uses Stevens's teaching of IP routing to route packets to either a current internal/private router and to a second/external/public router based on the comparison of the destination address with the serving hub/router. This modification would be more efficient because no paging of current location of the destination MS is required which reduces system resource usage. Furthermore, with IP routing, the size of the routing table is limited to thousands and not over populated to millions (paragraph before the example starts, page 39), thereby decreases the time in parsing the routing table and thus increase efficiency in routing".

Applicants respectfully traverses.

The Examiner has asserted that the feature associated with routing of the first hub is disclosed in Stevens, i.e., TCP/IP Illustrated Volume, 1994, pp., 37-41 (hereinafter referred as R4) describing routing an IP datagram by using an IP address included in a source address or a destination address. However, Stevens merely discloses routing for determining a next router (or node) by only partially using the destination address. Stevens fails to disclose the feature of determining a next route of a call connection request signal by using a source address, i.e., an UATI assigned to a terminal requesting call connection.

c. The pending claim 1 is amended to recite that the first hub determines whether to transmit the call connection request signal to the private station controller or to the second hub based on a determination regarding whether a server address included in the UATI

assigned to the transmission-side terminal **belongs to a set of server addresses pre-stored in the first hub**. This amendment is fully supported by Applicant's original paragraph [0040], [0041] and [0058].[2]

On the other hand, the combination of McConnell '719, Billstrom '133 and Stevens fails to disclose claim 1's "(comparing) a server address included in an Unicast Access Terminal Identifier (UATI) assigned to the terminal or in a destination address in association with the call connection request signal with **a set of server addresses pre-stored in the first hub**". McConnell '719 only compares the locator address of mobile station 66 at the reception side with the **coverage area of the private network 12.** Apparently, the coverage area of a private network is not synonymous with server addresses stored in the first hub.

d. The pending claim 1 is also amended to recite that it is the data location register that assignes the UATI for the terminal, and the UATI is assigned only when the terminal enters the service area of the private base station. This amendment is supported by

[2] Applicant's paragraph [0040] reads: "The hub 110 has predetermined server addresses utilized in determining whether a call is originated to the inside of the private wireless network or not. When there is a call to a server or an Unicast Access Terminal Identifier terminal having the server, which has an Unicast Access Terminal Identifier information containing a server address belonging to the predetermined server addresses in the hub 110, the call is detected as a call to the inside of the private wireless network";

Applicants' original paragraphs [0039] and [0041].[3,4]

The Examiner has also pointed out McConnell '719's column 17, lines 38 – 46 as the feature associated with the UATI assignment. However, McConnell '719's column 17, lines 38 – 46 merely discloses that mobile station 64 requests private network 12 registration for MIN and ESN of mobile station 64. Also, the MIN and ESN are unique identifiers assigned to the mobile station 64 and the subscriber, rather than assigned by the data location register only when the mobile station enters the private network. There is no teaching in McConnell '719 that the data location register assigns the MIN and ESN to the mobile station only when the mobile station enters the private network. Therefore, column 17, lines 38 – 46 of McConnell '719 is not considered to disclose such assignment of the UATI by the DLR.

In addition, the Examiner's attention is invited to note that Eyoboglu '749 expressly discloses that the Radio Network Controller (RNC) assigns the UATI, and the Examiner has admitted that Eyoboglu '749's RNC corresponds to Applicants' private base station eontroller. Consequently, Eyoboglu '749 suggests that it is the private base station controller, instead of Applicants' data location register, that assigns the UATI to the mobile stations.

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[3] Applicant's original paragraph [0039] reads: "**When a terminal enters a wireless service area,** each of the base stations 101 and 102 sets a session and performs an operation necessary to assign an Unicast Access Terminal Identifier, an Unicast Aecess Terminal Identifier (i.e., an "UATI") required for the terminal."

[4] Applicant's original paragraph [0041] reads: "For example, an Unicast Access Terminal Identifier is **assigned by a data location register (DLR)** 121 to a private wireless network subscriber to have a predetermined server address."

e. As mentioned in the MPEP §2143.03,

> "To establish prima facie obviousness of a claimed invention, **all the claim limitations** must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974)."

Because the combination of McConnell '719, Billstrom '133 and Stevens fails to teach of suggest claim 1's "(the first hub comparing) a server address ineluded in an UATI assigned to the terminal with the call connection request signal with a set of server addresses pre-stored in the first hub", and "the data location register assigning the UATI corresponding to the terminal, when the terminal enters a service area of the private base station", the combination of McConnell '719, Billstrom '133 and Stevens fails to teach of suggest all of the claim limitations in claim 1. Therefore, claim 1 is patentably distinguishable over the prior art.

II. Claim 32

The newly added claim 32 recites a method for the high-speed wireless data system to perform packet data communication. The method contemplates storing a set of server address in a first hub connected with a private base station, a private base station controller, and a second hub connected with a public base station controller. When the first hub received an access request signal from a mobile terminal, the first hub eompares a server address contained in an UATI of the mobile terminal with the set of server addresses stored in the first hub. When the server address contained in the UATI of the mobile terminal is among the set of server addresses stored in the first hub, the first hub transmits the access

request signal to the private base station controller. Otherwise, when the server address contained in the UATI of the mobile terminal is not among the set of server addresses stored in the first hub, the first hub transmits the access request signal to the public base station controller.

As discussed previously, the combination of McConnell '719, Billstrom '133 and Stevens fails to teach of suggest the pending claims' "(the first hub comparing) a server address included in an UATI assigned to the terminal with a set of server addresses pre-stored in the first hub", the combination of McConnell '719, Billstrom '133 and Stevens fails to teach of suggest all of the claim limitations in claim 32. Therefore, claim 32 is patentably distinguishable over the prior art.

No other issues remaining, reconsideration and favorable action upon all of the claims now present in the application is respectfully requested. Should any questions remain unresolved, the Examiner is requested to telephone Applicants' undersigned attorney.

A fee of $810.00 is incurred for Large Entity by the submission of the Request for Continued Examination (RCE). Should the other fees be incurred, the Commissioner is authorized to charge Deposit Account No. 02-4943 of Applicant's undersigned attorney in the amount of such fees.

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